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NOTICE OF ALLOWANCE AND FEE(S) DUE

22850 7590 09/09/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

HO, CHUONG T

ART UNIT

PAPER NUMBER

2619

DATE MAILED: 09/09/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/677,362

10/03/2003

Heng Qiu

243516US8

9806

TITLE OF INVENTION: RESOURCE ALLOCATING METHOD, AND BASE STATION, MOBILE STATION, AND RADIO PACKET COMMUNICATION SYSTEM TO WHICH THE RESOURCE ALLOCATING METHOD IS APPLIED

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	12/09/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

22850 7590 09/09/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/677,362 10/03/2003 Heng Qiu 243516US8 9806

TITLE OF INVENTION: RESOURCE ALLOCATING METHOD, AND BASE STATION, MOBILE STATION, AND RADIO PACKET COMMUNICATION SYSTEM TO WHICH THE RESOURCE ALLOCATING METHOD IS APPLIED

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1440 \$300 \$0 \$1740 12/09/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
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HO, CHUONG T 2619 370-431000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,362	10/03/2003	Heng Qiu	243516US8	9806
22850	7590	09/09/2008	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			HO, CHUONG T	
			ART UNIT	PAPER NUMBER
			2619	
DATE MAILED: 09/09/2008				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 864 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 864 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/677,362	QIU ET AL.	
	Examiner	Art Unit	
	CHUONG T. HO	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/12/08.
2. ☒ The allowed claim(s) is/are 1, 3, 4-6, 10, 8, 15, 16, 19, 17, 20, 18, 21-22 renumbered 1-15 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. ☒ Notice of References Cited (PTO-892) | 5. ☐ Notice of Informal Patent Application |
| 2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. ☐ Examiner's Amendment/Comment |
| 4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. ☒ Examiner's Statement of Reasons for Allowance |
| | 9. ☐ Other _____. |

DETAILED ACTION

1. The amendment filed 08/12/08 have been entered and made of record.

Allowable Subject Matter

1. Claims 1, 3, 4-6, 10, 8, 15, 16, 19, 17, 20, 18, 21-22 are allowed.
2. The following is a statement of reasons for the indication of allowable subject matter:
3. The following is a statement of reasons for the indication of allowable subject matter: Claim 1 is allowed. The prior art (6804227) discloses the reserved time length setting step sets a start time (figure 7B, Ts0) or reserved time corresponding to a first terminal in the figure 7B to be earlier than a start time (Ts1) of a reserved time corresponding to the second terminal (col. 6, lines 10-18). The prior art however fails to disclose (ii) a start time of the reserved time, and the reserved time length setting step sets a start time of a reserved time corresponding to a low priority in the priority level information to be earlier than a start time of a reserved time corresponding to a high priority in the priority level information.
4. The following is a statement of reasons for the indication of allowable subject matter: Claim 4 is allowed. The prior art (6804227) discloses the reserved time length setting step sets a start time (figure 7B, Ts0) or reserved

Art Unit: 2619

time corresponding to a first terminal in the figure 7B to be earlier than a start time (T_{s1}) of a reserved time corresponding to the second terminal (col. 6, lines 10-18). The prior art however fails to disclose (ii) a start time of the reserved time, and the reserved time length setting unit is further configured to set a start time of a reserved time corresponding to a low priority in the priority level information to be earlier than a start time of a reserved time corresponding to a high priority in the priority level information.

5. The following is an examiner's statement of reasons for allowance: the prior art (20030078050) of record does not appear to teach or render obvious the claimed limitations with the specific added limitations, as recited from independent claim 8: "propagation loss calculating means for calculating a propagation loss in transmission of a packet from the mobile station, based on the transmit power information in the reservation signal received by the reservation signal receiving means and information about a received power in reception of the reservation signal by the reservation signal receiving means; maximum received power calculating means for calculating a maximum received power of a signal received from the mobile station, based on the maximum transmit power information in the reservation signal and the propagation loss calculated by the propagation loss calculating means; maximum transmission rate calculating means for calculating a maximum transmission rate allocable to the mobile station, based on the maximum received power calculated by the maximum received power calculating means; and resource allocating means for

Art Unit: 2619

allocating a resource to the mobile station, based on the maximum transmission rate calculated by the maximum transmission rate calculating means”.

The following is a statement of reasons for the indication of allowable subject matter: Claim 15 is allowed. The prior art (6804227) discloses the reserved time length setting step sets a start time (figure 7B, Ts0) or reserved time corresponding to a first terminal in the figure 7B to be earlier than a start time (Ts1) of a reserved time corresponding to the second terminal (col. 6, lines 10-18). The prior art however fails to disclose the reserved time length unit is further configured to set a start time of a reserved time corresponding to a low priority in the priority level information to be earlier than a start time of a reserved time corresponding to a high priority in the priority level information.

6. The following is a statement of reasons for the indication of allowable subject matter: Claims 16, 17, 18 are allowed. Carlborg et al. (2003/0078050 A1) discloses a resource allocating system in a radio packet communication system for transmission and reception of packet data between a base station (figure 1, 104) and a mobile station (figure 1, 102), in which the base station (figure 1, 104) allocates a necessary resource ([0015], air interface reservation parameters (e.g., user / bits 115)) ([0037], resource reservation request and response) to communication with the mobile station (figure 1, 102), the resource allocation system comprising: A reservation signal transmitting step wherein the mobile station (figure 1, 102) transmits a reservation signal ([0011], reservation

Art Unit: 2619

resource request) containing priority level information (priority data associated with a plurality of air interface resource reservation parameters, and user identification data) about a priority level of communication to let the base station receive the reservation signal ([0011], reservation resource request); A reserved time length ([0020], the call back notification 126 may be sent at some time prior to the actual call initiation by the remote wireless unit 102 to notify the remote wireless unit 102 that the reserved time is, for example, five minutes away, or one minute away, or any other suitable time) in the reservation signal transmitted in the reservation signal transmitting step, the base station (figure 1, 104) sets a length of a reserved time for allocation of a resource, as a reserved time length ([0032], reservation time, [0033] reserved time);

there is a resource available for allocation in reserved time region defined by the reserved time length set in the reserved time length setting step, from a predetermined reservation start time, the base station reserves allocation of a resource for the communication with the mobile station having transmitted the reserved signal ([0012], the wireless network element receives the air interface resource reservation request to determine whether an air interface resource is available for the user at a defined future time and generates an air interface resource reservation response indicating whether the desired resource will be available for the remote wireless unit).

Takihiro discloses wherein said first reserved time region is a region that is set from predetermined reservation start time and said first reserved time includes the second reserved time region (figure 2, reservation priority level 518, figure 9,

Art Unit: 2619

a reserved communication time for priority level 1 "priority", a reserved communication time for priority level 2 "non priority") (col. 2, lines 66-67, col. 3, lines 18-32, lines 65-67, col. 8, line 50, col. 11, lines 23-30).

Cain (U.S. Patent No. 6,982,987 B2) discloses a reserved time region setting step wherein, when the priority level information in the reservation signal transmitted in the reservation signal transmittal step, indicates a high priority level, the base station sets a first reserved time region including a first reserved time length based on said high priority level, and a resource allocation reserving step when the base station receives the reservation signal indicating the high priority level and when there is a resource available for allocation in the first reserved time region, the base station reserves allocation of the resource in the first reserved time region for the communication with the mobile station having transmitted the reservation signal, and when the base station receives the reservation signal indicating the low priority level and when there is a resource available in the second reserved time region, the base station reserves allocation of the resource in said second reserved time region for the communication with the mobile station having transmitted the reservation signal (col. 7, lines 13-15, prioritization of the communication links will be addressed in greater detail below. In addition, the controller 18 may also prioritize the communication links and schedule the at least one available time slot based upon this prioritization) (col. 39, lines 22-25, the level of demand for a given communication link during a time slot may be further segmented into the amount of expected demand for several priority class of traffic. This enables more effective allocation of time slots to meet the demand

Art Unit: 2619

of prioritized traffic) (col.39, lines 36-37, if the traffic is prioritized into p priority classes in order of priority from lowest to highest, P1, P2, P3 ,..., PN, then the time slot demand for priority class Pj is) (col. 40, lines 26-28, the estimated demand for all priority classes and the number of allocated slots).

The prior art (Cain "U.S.Patent No. 6,982,987 B2") however fails to disclose when said priority level information indicates a low priority level lower than said high priority level, the base station sets a second reserved time region including a second reserved time length that is shorter than said first reserved time length.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG T. HO whose telephone number is (571)272-3133. The examiner can normally be reached on 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EDAN ORGAD can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2619

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

08/31/08

/Edan Orgad/

Supervisory Patent Examiner, Art Unit 2619